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| 10/717,043      | 11/19/2003  | Kunio Minagawa       | 3408.68744          | 7451             |

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| EXAMINER |
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BELL, CORY C

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| ART UNIT | PAPER NUMBER |
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2164

DATE MAILED: 04/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/717,043

Applicant(s)

MINAGAWA, KUNIO

Examiner

Cory C. Bell

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

  
**SAM RIMELL**  
**PRIMARY EXAMINER**

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

### **DETAILED ACTION**

1. Claims 1-12 have been examined.

#### ***Specification***

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

#### ***Drawings***

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters have been used to different elements, 1 and 1 circled and 2 and 2 circled. Also, In figure 5 the read line going to nas server 3b is missing an arrow. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

#### ***Claim Rejections - 35 USC § 101***

4. 35 U.S.C. 101 reads as follows:

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Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 1-12 are rejected under 35 USC 101 as the disclosed invention is inoperative and therefore lacks utility. Using the broadest reasonable interpretation the act of a data management unit performing exclusive control could mean that only the data management unit would have control barring things such as the computer processor, which are necessary for operation, from accessing the data, thus rendering the system inoperable.

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 4-12 are rejected under 35 USC 112 2<sup>nd</sup> paragraph.

8. **Claim 4** is rejected because the relationship between the “exclusive control” in claim 4 to the prior recitation in claim 1 is unclear.

9. **Claim 5** is rejected because “said plurality of file systems” and “said other file system” lack antecedent basis.

10. **Claim 6** is rejected because “said network connection server” lacks antecedent basis.

11. **Claim 7** is rejected because “the exclusive control” and “said network” lacks antecedent basis, as well as, the relationship between “exclusive control” on line 2 of pg 24 to “the exclusive control” on line 24 of page 23 being unclear.

12. **Claim 9** is rejected because the relationship between “file units” in claims 9 and 1 is unclear.

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13. **Claim 11** is rejected because “said another file” lacks antecedent basis.
14. **Claim 12** is rejected because “said service system” lacks antecedent basis.

***Claim Rejections - 35 USC § 103***

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Patent Application Pub No. 2000-2764457, supplied by the applicant and known hereafter as Takashi, in view of us patent 5263155, known hereafter as Wang.

17. **Claim 1** is rejected for the following reasons:

1. An inter-network relay storage apparatus for distributing data between a plurality of independent network environments, comprising: a storage unit having a data area for storing files to be transferred between said networks in file units(Takashi translation page 1 lines 10-14, and figure 1 item 104) and a file management table to indicate the access status to said file; and a data management unit for performing exclusive control between file systems for each one of said networks using said file management table(Takashi translation page 1 line 15 – page 3 line 13, para 43).

Takashi teaches the elements of claim one shows above, yet it fails to expressly disclose the use of a file management table to indicate access status of files. Takashi does use status information but does not disclose how it is stored(*Page 12 line 10-20*). However, Wang teaches using a lock table to indicate file status in col 5 lines 16-26 and col 6 lines 29-64), which is a file management table using the broadest reasonable interpretation. Thus it would have been obvious to one of ordinary skill in the art to include the lock tables to indicate file status in the system of Takashi, as it would have been know by one of ordinary skill in the art that it provides an improved method for concurrency, as it locks only the necessary files not whole sectors.

18. **Claim 2** is rejected for the following reasons:

2. The inter-network relay storage apparatus according to claim 1, wherein said data management unit is disposed in a pair of network servers which are connected to said networks respectively(*Takashi translation page 1 line 15 – page 3 line 13, Figure 1 paras. 21 and 22*).

19. **Claim 3** is rejected for the following reasons:

3. The inter-network relay storage apparatus according to claim 1, further comprising a pair of network connection servers having said data management unit respectively, and are connected to said networks respectively, and communicate data via said networks (*Takashi, Figure 1 paras. 21 and 22, and claim 2 rejection, these servers inherently communicate data via the networks*).

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20. **Claim 4** is rejected for the following reasons:

4. The inter-network relay storage apparatus according to claim 1, wherein, when said file of said storage apparatus is read or written, said data management unit sets an indication to show that the file is in use in said file management table before said file is read or written, and resets said in use indication and performs exclusive control after said file is read or written.

Paras. 43-53 of Takashi teaches said file of said storage apparatus is read or written, said data management unit sets an indication to show that the file is in use, before said file is read or written, and resets said in use indication and performs exclusive control after said file is read or written, however it does not expressly teach the use of a file management table. However, Wang teaches using a lock table to indicate file status in col 5 lines 16-26 and col 6 lines 29-64), which is a file management table using the broadest reasonable interpretation. Thus it would have been obvious to one of ordinary skill in the art to include the lock tables to indicate file status in the system of Takashi, as it would have been know by one of ordinary skill in the art that it provides an improved method for concurrency, as it locks only the necessary files not whole sectors. It should also be noted that lines 25 –3 are optionally recited limitations and are non-limiting, see MPEP 2111.04.

21. **Claim 5** is rejected for the following reasons:

5. The inter-network relay storage apparatus according to claim 4, wherein said data area of said storage unit comprises: a first area which is written by one file system of said plurality of file systems and read by another file system; and a second area which is written by said other file system and read by said one file system(*Takashi translation page 1 line 5 – page 3 line 13, paras*

43and 54).

22. **Claim 6** is rejected for the following reasons:

6. The inter-network relay storage apparatus according to claim 3, wherein said network connection server comprises: a network control section for connecting with said network for communication (*inherent feature of a server*); and said data management unit(*See claim 2 rejection*).

23. **Claim 7** is rejected for the following reasons:

7. An inter-network relay method for distributing data between a plurality of independent network environments, comprising the steps of: performing the exclusive control between file systems using a file management table to indicate the access status to a file in the storage apparatus by said file system for said network; and writing and reading files in file units to/from said storage apparatus during exclusive control, and relaying data between said networks by said file system for said network.

Takashi teaches writing and reading files in file units to/from said storage apparatus during exclusive control in paras 43 and 54, and relaying data between said networks by said file system see page 1, and using status indicators to execute the exclusive control see pages 25 and 26. However, Wang teaches using a lock table to indicate file status in col 5 lines 16-26 and col 6 lines 29-64), which is a file management table using the broadest reasonable interpretation. Thus it would have been obvious to one of ordinary skill in the art to include the lock tables to indicate file status in the system of Takashi, as it would have been know by one of ordinary skill



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in the art that it provides an improved method for concurrency, as it locks only the necessary files not whole sectors.

24. **Claim 8** is rejected for the following reasons:

8. The inter-network relay method according to claim 7, wherein said file system is disposed in a pair of network servers which are connected to said networks respectively (*Takashi translation page 1 line 15 – page 3 line 13, Figure 1 paras. 21 and 22*).

25. **Claim 9** is rejected for the following reasons:

9. The inter-network relay method according to claim 7, further comprising a step of connecting to said networks respectively by a pair of network connection servers, and executing said data relay in file units according to the request from said networks (*These features are inherent to the server shown in figure 1, which also inherently receive requests for said data see paras. 21-22*).

26. **Claim 10** is rejected for the following reasons:

10. The inter-network relay method according to claim 7, wherein said exclusive control step is a step of performing the exclusive control, when said file of said storage apparatus is read or written, by setting an indication to show the file to in use in said file management table before said file is read or written, and resetting said in use indication after said file is read or written. (*See Claim 4 rejection*)

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It should also be noted that claim 10 is an optionally recited limitation and is non-limiting, see MPEP 2111.04.

27. **Claim 11** is rejected for the following reasons:

11. The inter-network relay method according to claim 10, wherein said data relay step comprises: a step of writing a first area of said storage apparatus by one file system of said plurality of file systems and reading said first area by another file system; and a step of writing a second area of said storage apparatus by said another file and reading said second area by said one file system. *(See claim 5 rejection)*

28. **Claim 12** is rejected for the following reasons:


12. The inter-network relay method according to claim 9, wherein further comprises a step of issuing a data relay request to the network connection server connected to said network by said service system of said network *(Page 3 Claim 2, shows these limitations as best understood)*.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cory C. Bell whose telephone number is (571) 272 2736. The examiner can normally be reached on m-f 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Rones can be reached on (571) 272 4085. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**SAM RIMELL**  
**PRIMARY EXAMINER**